12-1-1976

The 1976 Iowa Corn Yield Test Report, District 3

William E. Falck
Iowa State University

C. D. Hutchcroft
Iowa State University

The 1976 Iowa Corn Yield Test Report, District 3

Abstract
Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn varieties. This is the fifty-seventh consecutive year for the test.

Disciplines
Agriculture | Agronomy and Crop Sciences

IOWA STATE UNIVERSITY

AGRONOMY
• Crops
• Soils
• Climate

THE 1976 IOWA CORN YIELD TEST REPORT

District 3

Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn varieties. This is the fifty-seventh consecutive year for the test.

The presentation of data for the varieties tested does not imply approval or endorsement by the authors or by the agencies sponsoring or conducting the test. Iowa State University approves the reproduction of any table in this report **only** if no portion is deleted and if the order of the data is not rearranged. Entries in tables 1 and 2 are designated by brand name and variety.

1976 Procedure

Producers of corn seed and Iowa State University were eligible to enter varieties in the Iowa Corn Yield Test. Each producer was allowed a maximum of nine entries per district. All entries had to be available in a quantity of at least 10 bushels.

One-hundred-twenty-one varieties were compared in this test. Two open-pedigree varieties were entered by Iowa State University from its corn breeding program. Seventeen of the varieties were determined to be widely grown and were entered by Iowa State University. Varieties were considered widely grown if they were planted on 0.75 percent or more of the corn acreage in the district according to the 1974 survey of Iowa corn growers. Iowa State University entered a maximum of five widely grown varieties of any given brand. These entries were given priority over the remaining 102 entries made by seed producers.

Each entry was replicated four times in 4-row plots at a planting rate of 23,500 kernels per acre at each location. All locations were machine-planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot, and yields were corrected to 15.5-percent moisture for shelled corn.

How Information Is Presented

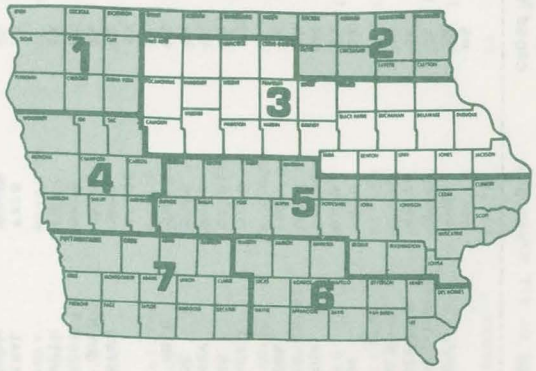
The data presented are averages of two locations in 1974, 1975, and 1976. Yields in bushels per acre and percentage of moisture, root lodging, stalk lodging, dropped ears, and stand are shown for all varieties tested in 1976 and for varieties tested in 1974 and 1975 that were in the 1976 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values shown in tables 1 and 2 represent, in bushels per acre, the amounts of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in tables 1 and 2 are indicators of maturity and natural drying rate. Maturity of varieties entered generally ranged from early to full season. Yield comparisons should be made among varieties of similar maturity.

Yield comparisons were made at one plant population that was similar to the moderate planting rate in the past years. It is important to select varieties having stable performance over a range of environmental conditions. High yields for two or more consecutive years indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from your seed corn dealers and from neighbors who have grown these varieties.



Prepared by William E. Falck, instructor in agronomy, and C. D. Hutchcroft, professor of agronomy and secretary of the Iowa Crop Improvement Association.

Cooperative Extension Service, Agriculture and Home Economics Experiment Station, Iowa Crop Improvement Association, and the United States Department of Agriculture cooperating

Cooperative Extension Service
IOWA STATE UNIVERSITY
Ames, Iowa 50011

Pm-660-3-76
December 1976

TABLE 1. AVERAGE PERFORMANCE OF VARIETIES TESTED IN DISTRICT 3.
MODERATE POPULATION - 23,500 PLANTING RATE. LSD FOR 1976 YIELD IN BUSHELS IS 13.

			YIELD BU./A			MOISTURE PCT.			ROOT LODGING PCT.			STALK LODGING PCT.			DROPPED EARS PCT.			STAND PCT.		
BRAND	VARIETY	CROSS	1974	1975	1976	1976	1975	1974	1976	1975	1974	1976	1975	1974	1976	1975	1974	1976	1975	1974
FS	096	MS			98	16.5			0			6			2			78		
*PIONEER	3785	SX		129	112	17.1	16.6		0	0		3	0		0	0		82	83	
GOLDEN HARVEST	H2355	SX	115	136	96	17.2	15.9	18.1	0	0	1	4	2	1	1	0	1	77	76	81
MIDDLEKOOP	M302A	SX			123	17.8			0			3			0			81		
*DEKALB	XL21A	SX			120	18.3			0			2			1			77		
PRIDE	5525	SX			94	18.4			0			2			1			84		
SAR	SX123	SX			123	18.5			0			1			0			79		
ASGROW	RX2345	SX			125	18.6			0			6			1			73		
SUPER CROST	2350	SX			135	18.6			0			2			0			75		
FEDERAL	FX6	SX	133	125	115	18.7	19.1	20.7	0	0	0	2	2	3	1	0	0	75	82	88
*PIONEER	3780	SX	140	156	126	18.8	18.3	18.9	0	0	0	4	2	2	0	0	0	79	81	87
*FUNKS	G4321A	SX	129	157	120	18.9	19.7	21.4	0	0	2	2	0	3	1	0	0	72	85	85
BLANEY	B606	SX			146	18.9			0			1			0			79		
PRIDE	5565	SX			105	19.0			0			1			1			82		
O'S GOLD	SX1107	MS			124	19.0			0			1			1			73		
SAR	SX205	SX		150	109	19.0	20.3		0	0		1	3		0	0		78	83	
WILSTAR	5555	SX			137	19.1			0			2			1			76		
O'S GOLD	SX1020	SX			117	19.2			0			3			1			80		
PIONEER	3709	MS			128	19.2			0			1			0			80		
GUTWEIN	46	SX			141	19.2			0			2			1			83		
FEDERAL	FX28	SX			119	19.3			0			8			0			73		
MCCURDY	MSX46	SX			136	19.5			0			1			0			79		
SECURITY	SS105	SX		158	119	19.5	21.2		0	0		3	0		1	0		72	80	
WILSON	1400	SX			137	19.5			0			1			0			80		
AMES BEST	SX37	SX			122	19.5			0			2			0			75		
CORNELIUS	C36SX	SX	133	149	119	19.5	21.0	23.7	0	0	1	2	0	4	0	0	0	75	79	88
EMBRO	X40	SX			122	19.5			0			1			0			79		
PAG	SX59	SX			119	19.5			0			3			0			76		
COOP	2200	SX			110	19.6			0			3			0			73		
PFISTER	18	SX			109	19.6			0			1			0			77		
SAR	SX200	SX	132	149	117	19.6	20.2	23.7	0	0	1	3	2	0	1	0	0	79	83	87
KALTENBERG	KX68	SX			108	19.6			0			0			0			64		
CORNELIUS	C34SX	SX			118	19.6			0			0			0			89		
CARGILL	890	SX	127	138	131	19.6	20.7	23.4	0	0	1	11	0	10	0	0	0	80	80	81
MCCURDY	MSX44A	SX		145	114	19.6	20.6		0	0		2	1		0	0		75	83	
PFISTER	19	SX			117	19.6			0			3			0			80		
AMERICANA	2800	SX	131	140	116	19.6	20.4	25.1	0	0	6	4	0	4	0	0	0	75	83	83
SEAGULL	SX11A	SX		135	121	19.6	21.1		0	0		4	0		1	0		74	81	
*TROJAN	TXS108A	SX	124	124	104	19.7	22.0	23.6	0	0	3	0	0	3	0	1	1	81	87	86
AMES BEST	AB110	SX			110	19.7			0			3			0			79		
*NORTHRUP KING	PX50A	SX	130	146	109	19.7	20.9	23.6	1	0	2	2	0	3	1	0	0	78	77	82
GOLDEN HARVEST	H2460	SX			121	19.7			0			3			0			77		
GOLDEN HARVEST	H2510	SX		136	95	19.7	19.9		0	0		1	2		2	0		78	85	
SECURITY	SS108	SX			122	19.7			0			3			1			81		
MCALLISTER	SX7402	SX	128	144	142	19.8	20.4	23.8	0	0	4	1	2	2	0	0	0	84	77	86
EMBRO	X2A	SX			104	19.8			1			4			0			74		
*FUNKS	G4444	SX	136	153	120	19.8	20.7	24.9	0	0	1	1	4	1	1	0	0	75	82	85
DAIRYLAND	DX1007	SX			112	19.8			1			3			1			75		
FS	444	SX		145	132	19.8	21.3		0	0		1	1		0	0		76	79	
SAR	SX210	SX	113	143	107	19.8	21.1	22.3	0	0	3	1	0	1	1	0	4	80	81	84
USS	0050	3X			106	19.8			0			3			1			77		
WILSON	1016	SX			117	19.9			0			3			1			82		
SUPER CROST	2890	SX		136	129	19.9	20.1		0	0		2	1		1	0		76	81	
MIDDLEKOOP	M301	SX	138	138	126	19.9	21.4	21.0	0	0	6	2	0	6	0	0	0	69	81	84
LYNKS	4220	SX			134	19.9			0			1			0			75		
ASGROW	RX4525	SX	134	152	112	19.9	21.2	23.6	0	0	5	3	2	4	0	0	0	75	82	84
*O'S GOLD	SX1100	SX	129	138	109	19.9	19.7	23.4	0	0	1	3	0	1	0	0	0	77	82	86
ENO	SX14	SX	134	153	115	19.9	20.9	24.2	1	0	6	2	2	5	1	1	0	79	84	82
ASGROW	RX2445	SX			124	19.9			0			4			0			79		
IOWA STATE UNIV	(A632XB75)	SX		152	131	19.9	20.8		0	0		16	0		0	0		74	83	
CORNELIUS	SX37A	SX		146	100	20.0	19.4		0	0		1	0		0	1		74	81	
COOP	2201	SX			126	20.0			0			4			0			73		
ENO	3X35	3X	115	123	104	20.0	21.1	22.4	1	0	4	4	2	7	1	0	0	75	85	86
LYNKS	4200	SX	127	147	108	20.1	20.2	25.3	1	0	3	3	3	3	0	0	0	75	85	89
GOLDEN HARVEST	H2450	SX	146	132	105	20.1	20.8	23.3	0	0	3	2	1	1	0	0	1	73	74	89
PFISTER	21A	SX			118	20.1			0			3			1			80		
HULTING	X537	SX	122	125	114	20.2	20.5	21.8	0	0	1	3	0	5	1	0	0	76	84	86
*TROJAN	TXS102	SX	142	150	117	20.2	20.9	24.5	0	0	3	3	0	2	1	0	0	76	82	88
SUPER CROST	2470	MS			104	20.2			0			2			1			76		
ACCO	UC3301	SX	137	146	117	20.2	20.6	24.0	0	0	2	3	0	7	0	0	0	79	80	87
IOWA STATE UNIV	(A632XOH545)				124	20.2			0			6			0			76		
GUTWEIN	23	SX			107	20.2			1			2			1			78		
*PIONEER	3517	MS	110	124	125	20.3	21.3	24.4	0	0	0	2	0	1	1	0	3	78	80	84
CROWS	424	SX			114	20.3			0			2			1			78		
PAG	SX397	SX	127	134	130	20.4	21.8	23.9	0	0	1	7	1	18	0	0	0	79	82	84
MARTINSON	SX340A	SX	135	142	120	20.5	20.7	23.2	0	0	2	3	1	3	1	0	0	76	82	89
PFISTER	21	SX			116	20.5			0			6			0			74		
FS	242	SX		141	127	20.5	22.2		0	0		9	3		0	0		75	75	
AMERICANA	D288	MS			129	20.6			0			3			1			75		
USS	0010	SX			124	20.7			0			12			0			81		
AMERICANA	D302	SX			124	21.0			0			2			0			75		
HULTING	X770	SX	137	145	127	21.0	21.0	23.0	0	0	2	13	2	18	1	0	0	80	86	82
PAG	SX424	SX		146	132	21.1	22.4		0	0		8	0		0	0		85	84	
ACCO	UC6601	SX			133	21.1			0			10			0			77		
ACCO	UC4201	SX			115	21.1			0			1			0			74		
SEAGULL	SX25	SX			124	21.2			0			1			0			76		
*NORTHRUP KING	PX610A	3X	116	136	128	21.2	22.3	24.8	0	0	1	9	0	8	1	0	0	76	82	85
SEAGULL	SX33	SX			138	21.2			0			13			0			79		
PRIDE	R803	SX		142	125	21.3	22.6		0	0		1	1		0	0		76	84	
LYNKS	4300	SX	122	149	136	21.4	21.1	22.5	0	0	5	7	4	17	0	0	0	78	82	81
FUNKS	G4449	SX			122	21.4			0			2			0			75		
USS	0555A	3X			133	21.5			0			2			0			80		
*DEKALB	XL43	SX	135	152	129	21.5	21.3	24.6	0	0	0	4	0	1	0	0	0	80	84	81
MIDDLEKOOP	M334	SX			113	21.6			0			3			0			76		
MELLOWDENT	220	SX			124	21.7			0			2			0			75		
*CROWS	226	SX		145	103	21.8	20.7		0	0		4	1		0	0		77	83	
HULTING	X322	SX	126	144	117	21.8	22.3	24.2	0	0	0	7	1	7	1	0	0	78	80	84
CARGILL	920	SX		155	131	21.9	22.7		0	0		5	0		0	0		74	82	
*DEKALB	XL54	SX		148	136	21.9	22.1		0	0		3	0		0	0		79	80	
MCCURDY	MSX54	SX		154	126	22.1	21.9		0	0		8	3		0	0		79	81	
MCCURDY	MSX60	SX	129	144	135	22.2	23.4	25.7	0	0	7	1	0	4	0	0	2	73	84	87
HULTING	X6861	3X		132	114	22.2	23.9		0	0		2	2		0	0		75	82	
CORNELIUS	374X	3X		142	123	22.2	24.3		0	0		4	2		0	0		78	82	
MIDDLEKOOP	M42A	3X			109	22.3			0			3			0			78		
*PIONEER	3388	MS		146	130	22.4	23.9		0	0		6	0		0	0		77	83	
MCALLISTER	SX7406	SX		153	141	22.6	25.0		0	0		6	1		0	0		76	84	
*DEKALB	XL348	3X			125	22.6			0			6			0			77		
EMBRO	X60	SX			134	22.8			0			1			0			72		
FS	680	SX		132	139	23.0	24.1		0	0		1	0		0	0		78	71	
PRIDE	7715	SX		143	150	23.2	24.5		0	0		1	1		0	1		78	75	
O'S GOLD	SX5500A	SX			138	23.2			0			2			1			75		
TROJAN	TXS115A	SX			133	23.2			0			1			1			78		
TROJAN	TXS113	SX			129	23.2			0			3			0			80		
ACCO	X47601	SX			138	23.3			1			7			0			80		
*DEKALB	XL64	SX	131	159	137	23.3	23.0	27.4	0	0	2	5	3	8	0	0	0	80	85	93
MCALLISTER	SX7300	SX	141	153	142	23.4	25.7	27.9	0	0	3	4	0	1	1	0	0	83	84	91
KALTENBERG	KX76	SX			135	23.4			0			2			1			79		
MELLOWDENT	225	SX			134	23.7			0			1			0			75		
FUNKS	G4520	SX			132	23.8			0			3			0			77		
SEAGULL	SX40	SX	138	145	143	23.9	24.6	28.0	0	0	3	1	2	0	0	0	0	77	75	82
MARTINSON	SX470	SX			142	23.9			0			1			0			74		
AVERAGE OF ALL ENTRIES			129.8	143.1	122.1	20.5	21.3	23.6	0.1	0.0	2.4	3.4	1.0	4.7	0.4	0.1	0.4	77.1	81.4	85.3

SX = SINGLE CROSS. MS = MODIFIED SINGLE CROSS. 3X = 3-WAY CROSS. 4X = 4-WAY CROSS.
*WIDELY GROWN VARIETY.

Table A. Field Data

	Winslow Farm Tama silty clay loam			Broghammer Farm Kenyon loam		
Fertilizer applied, lbs.	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Plowdown	18	46	60	10	30	90
Preplant	100	—	—	170	—	—
Starter	12	48	24	10	40	40
TOTAL	130	94	84	190	70	130
1975 Crop		Soybeans			Corn	
Row width		38 inches			36 inches	
Planting date		April 30			May 3	
Harvest date		Oct. 20			Oct. 22	

1976 Field Data

The District 3 test was conducted on farms operated by Joe Reigelsberger near Rolfe in Pocahontas County, by Francis Winslow near Grundy Center in Grundy County, and by James Broghammer near Ryan in Delaware County. The data from the Rolfe location was not included because of drouth damage. The field data are presented in Table A.

Subsoil moisture was favorable at all locations at planting time. Rainfall was below normal during May, June, July, August, and September. Temperatures were above normal during May, June, July, August, and September. Yield levels were slightly below normal for the district.

District 3

Designations Identifying Brands in the Yield Test

ACCO ..... ACCO Seed Div. of Anderson, Clayton & Co., Belmond, Ia. 50421
Americana ..... Americana Seeds, Muscatine, Ia. 52761
Ames Best ..... Ames Best Hybrids, Ames, Ia. 50010
Asgrow ..... Asgrow Seed Company, Des Moines, Ia. 50310
Blaney ..... Blaney Farms, Inc., Madison, Wis. 53713
Cargill ..... Cargill, Inc., Minneapolis, Minn. 55402
Coop ..... Farmland Industries, Inc., Kansas City, Mo. 64116
Cornelius ..... Cornelius Seed Corn Co., Bellevue, Ia. 52031
*Crow's ..... Crow's Hybrid Corn Co., Milford, Ill. 60953
Dairyland ..... Dairyland Seed Co., Inc., Kewaskum, Wis. 53040
*DeKalb ..... DeKalb Ag. Research, Inc., DeKalb, Ill. 60115
Embro ..... Ramy Seed Co., Mankato, Minn. 56001
Eno ..... Eno Farms, Inc., Sheffield, Ia. 50475
Federal ..... Federal Hybrids, Marion, Ia. 52302
F.S. ..... F.S. Services, Inc., Bloomington, Ill. 61701
*Funks ..... Funk Seeds International, Inc., Bloomington, Ill. 61701
Golden Harvest ..... Golden Seed Co., Cordova, Ill. 61242
Gutwein ..... Fred Gutwein & Sons, Inc., Francesville, Ind. 47946
Hulting ..... Hulting Hybrids, Div. of Ferry-Morse, Geneseo, Ill. 61254
Iowa State University ..... Department of Agronomy, Ia. State University, Ames, Ia. 50011
Kaltenberg ..... Kaltenberg Seed Farms, Waunakee, Wis. 53597
Lynks ..... Lynk Bros. & Baird, Inc., Marshalltown, Ia. 50158
Martinson ..... Gordon Martinson Seed Farm, Harcourt, Ia. 50544
McAllister ..... McAllister Seed Farms, Mt. Pleasant, Ia. 52641
McCurdy ..... McCurdy Seed Co., Fremont, Ia. 51002
Mellowdent ..... Mellowdent Industries, Inc., Alta, Ia. 51002
Middlekoop ..... Middlekoop Seed Corn Co., Packwood, Ia. 52580
*Northrup King ..... Northrup King & Co., Minneapolis, Minn. 55413
*O's Gold ..... O's Gold Seed Co., Parkersburg, Ia. 50665
*PAG ..... PAG Seeds, Minneapolis, Minn. 55401
Pfister ..... Pfister Hybrid Corn Co., El Paso, Ill. 61738
*Pioneer ..... Pioneer Hi-Bred International, Inc., Des Moines, Ia. 50308
Pride ..... Pride Company, Inc., Glen Haven, Wis. 58810
Sar ..... Sar Seed Farms, Charles City, Ia. 50616
Seagull ..... Rothermel Seed Company, West Liberty, Ia. 52776
Security ..... Security Seed Co., Williamsburg, Ia. 52361
Super Crost ..... Edward J. Funk & Sons, Inc., Kentland, Ind. 47951
*Trojan ..... Pfizer Genetics, Inc., Olivia, Minn. 56277
USS ..... USS Agri-Chemicals, Clayton, Mo. 63105
Wilson ..... Wilson Hybrids, Inc., Harlan, Ia. 51537
Wilstar ..... Helena Chemical Co., Des Moines, Ia. 50303

*Widely grown entries made by Iowa State University.

TABLE 2. AVERAGES OF 1975-76 AND 1974-76 OF VARIETIES TESTED IN DISTRICT 3. LSD FOR YIELDS ARE 9 BUSHELS FOR 74-76 AND 11 BUSHELS FOR 75-76.

BRAND	VARIETY	CROSS	YIELD BU./A 74-76	YIELD BU./A 75-76	MOISTURE PCT. 75-76	MOISTURE PCT. 74-76
GOLDEN HARVEST	H2355	SX	115	116	16.6	17.1
*PIONEER	3745	SX		120	16.6	
*PIONEER	3780	SX	140	141	18.5	18.7
FEDERAL	FX6	SX	124	120	18.9	19.5
*FUNKS	G4121A	SX	135	138	19.3	20.0
SAR	SX705	SX		129	19.6	
CORNELIUS	SX17A	SX		123	19.7	
*O'S GOLD	SX1100	SX	125	123	19.8	21.0
GOLDEN HARVEST	H7510	SX		115	19.8	
SAR	SX700	SX	137	133	19.9	21.2
AMERICANA	3800	SX	129	128	20.0	21.7
SUPER CROST	7690	SX		132	20.0	
LYNKS	4700	SX	127	127	20.1	21.9
MCALLISTER	SX7402	SX	138	143	20.1	21.3
MCCURDY	MSX44A	SX		129	20.1	
CARGILL	990	SX	132	134	20.2	21.2
*NORTHRUP KING	PX50A	SX	128	127	20.3	21.4
SEAGULL	SX11A	SX		128	20.3	
CORNELIUS	C365X	SX	133	134	20.3	21.4
*FUNKS	G4444	SX	136	136	20.3	21.8
HULTING	X517	SX	120	119	20.3	20.8
IOWA STATE UNIV	IA432X0751	SX		141	20.3	
ENO	SX14	SX	134	134	20.4	21.7
GOLDEN HARVEST	H2450	SX	127	118	20.4	21.4
SECURITY	SS105	SX		138	20.4	
ACCO	UC3301	SX	133	131	20.4	21.6
SAR	SX710	SX	121	125	20.5	21.1
FS	444	SX		138	20.6	
*TROJAN	TXS102	SX	136	133	20.6	21.9
ENO	3X35	3X	114	113	20.6	21.2
ASGROW	RX4525	SX	132	132	20.6	21.6
MARTINSON	SX340A	SX	132	131	20.6	21.5
MIDDLEKOOP	M301	SX	134	132	20.7	20.8
*PIONEER	3517	MSX	119	124	20.8	22.0
*TROJAN	TXS108A	SX	117	114	20.9	21.8
HULTING	X77C	SX	136	136	21.0	21.6
PAG	SX397	SX	130	132	21.1	22.0
*CROWS	226	SX		124	21.3	
LYNKS	4300	SX	135	142	21.3	21.7
*DEKALB	XL43	SX	138	140	21.4	22.5
FS	242	SX		134	21.4	
*NORTHRUP KING	PX510A	3X	124	132	21.7	22.4
PAG	SX424	SX		135	21.8	
PRIDE	8831	SX		133	22.0	
MCCURDY	MSX54	SX		140	22.0	
*DEKALB	XL54	SX		142	22.0	
HULTING	X322	SX	129	130	22.0	22.8
CARGILL	929	SX		143	22.3	
MCCURDY	MSX60	SX	136	139	22.8	23.8
HULTING	X6961	3X		123	23.1	
*PIONEER	3388	MSX		138	23.2	
*DEKALB	XL44	SX	142	148	23.2	24.6
CORNELIUS	174X	3X		132	23.3	
FS	680	SX		135	23.6	
PRIDE	7715	SX		146	23.8	
MCALLISTER	SX7406	SX		147	23.8	
SEAGULL	SX40	SX	142	144	24.3	25.5
MCALLISTER	SX7300	SX	145	147	24.6	25.7

OTHER REPORTS

Separate reports for variety performance are available for each district shown in fig. 1. These publications are available at your county extension office or from Publications Distribution, Printing and Publications Building, Iowa State University, Ames, Iowa 50011.

The 1976 Iowa Corn Yield Test Report:
Pm-660-1-76 District 1
Pm-660-2-76 District 2
Pm-660-3-76 District 3
Pm-660-4-76 District 4
Pm-660-5-76 District 5
Pm-660-6-76 District 6
Pm-660-7-76 District 7

File: Agronomy 1

Cooperative Extension Service, Iowa State University of Science and Technology and the United States Department of Agriculture cooperating. Charles E. Donhowe, director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.